

Initial	Date
aw	4-17-92
Rue	4/12/92
petr	4/20/92
Sum	4/15/92
D. H.	4/16/92

BA/EN
WR ND
Mail Stop 60190

APR 20 1992

Memorandum

To: ARD, Refuges and Wildlife (60130)
Attention: Dale Henry

From: Regional Engineer, Division of Engineering, Region 6

Subject: 1991-1992 Annual Water Use Report/Management Plan

The subject reports for the Tewaukon National Wildlife Refuge complex have been reviewed and approved as submitted with the following comment. We have previously advised Refuge personnel that the water rights listing in paragraph 1 is incomplete. Attached is a 1988 memo to the files which correctly describes those rights. Please request that this section be corrected in next year's report.

Please extend our thanks to Refuge personnel for the timely submission of this report.

/S/ WILLIAM A. GODBY

Attachment

bcc: EN rf
Circ rf (2)
EN:CWilliss:fk:4/15/92

November 9, 1988

Memo

To: Files

From: Water Rights Specialist *aw*

Subject: Water Rights

In connection with the Ducks Unlimited project on Pool 3, I reviewed the water rights files for Tewaukon NWR. The Refuge has the following water rights:

Declaration of Filing, priority September 1, 1934, covers ⁹⁵7589 AF storage and 4563 AF seasonal use on 1521 acres, as follows:

Lake Tewaukon and East and West White Lake (including Cutler Marsh)
from Wild Rice River

1417 acres 719²/₈ AF storage 4251 AF seasonal

Clouds (Hepi) Lake from unnamed trib to Wild Rice River
104 acres 397 AF storage 312 AF seasonal

An application for supplemental water rights, for developments proposed in the Master Plan, was originally submitted on September 22, 1964; and resubmitted as 3 separate applications on December 23, 1964:

Permit No. 1261, priority December 28, 1964, for 4852 AF storage and 2287 AF seasonal use, totalling 7139 AF. Table 1, sheet 3 illustrates that this application covers additional storage and seasonal use in Lake Tewaukon, Cutlers Marsh and West White Lake; 409 AF seasonal use to replace water to be diverted from the watershed by a Sargent County Water Conservation District project; and total storage and seasonal use for Pools 3 and 4.

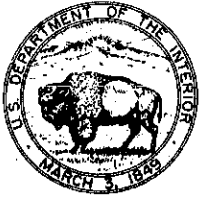
Permit No. 1262, priority December 28, 1964, for 635 AF storage and 495 AF seasonal use, totalling 1130 AF, for Sprague Lake from an unnamed creek.

Permit No. 1263, priority December 28, 1964, for 107 AF storage and 129 AF seasonal use, totalling 236 AF for Mann Lake from the Wild Rice River. The original application included 270 AF storage and 180 AF seasonal use totalling 450 AF for use in Pool 15. A letter of March 13, 1978, advised the State Engineer that Pool 15 would not be built and asked that this permit be amended to show that the 450 AF would be used in Pool 16, Horseshoe Slough.

Permit No. 3816, priority August 15, 1985, for 474 AF storage and 97 AF seasonal use totalling 571 AF for the Nickeson Bottoms from the Wild Rice River.

Water for Pools 5 through 10 is provided from the Hepi Lake watershed under the 1934 Declaration of Filing. Hepi Lake is drawn down to fill these pools.

In discussions with the State Engineer in connection with the 1964 applications, and in a letter of November 6, 1964, from the Special Assistant Attorney General (copy attached), the Service was advised that its existing water rights could be utilized as desired within the Refuge boundaries, so long as other water users are not adversely effected.



United States Department of the Interior

FISH AND WILDLIFE SERVICE
TEWAUKON NATIONAL WILDLIFE REFUGE
RR #1, BOX 75
CAYUGA, NORTH DAKOTA 58013



MEMORANDUM

January 30, 1992

To: R&W, Associate Manager ND (60130)
Denver, CO

From: Refuge Manager, Tewaukon NWR Complex (62660)
Cayuga, ND

Subject: 1992 Annual Water Management Plan and 1991 Use Report

1. List of Water Rights

Declaration of Filing (#1261) dated September 1, 1934, for Lake Tewaukon and East and West White Lake (including Cutler Marsh), 7,198 acre-feet storage, 4,251 acre-feet seasonal from Wild Rice River.

Declaration of Filing (#57) dated September 1, 1934 claimed 397 acre-feet storage and 312 acre-feet seasonal use for Clouds Lake (Pool 8) now calling Hepi Lake. Listed on the same sheet as Lake Tewaukon/White Lake, as per RO(EN) Marshall Fox's 11-14-83 memo.

Tewaukon NWR #1262: 1,130 acre-feet yearly (635 acre-feet storage and 495 acre-feet seasonal use) for Sprague Lake, dated December 1964, diversion from an unnamed creek in the SE1/4NW1/4, Section 2.

Tewaukon NWR #1263: 686 acre-feet yearly for Mann Lake (236 acre-feet) and Horseshoe Slough (450 acre-feet) dated December 1964, diversion from the Wild Rice River.

Tewaukon NWR #3816 Nickeson Tract: 571 acre-feet (474 acre-feet storage, 97 acre-feet annual use) for the Nickeson Bottoms, a tract jointly owned by the ND Game and Fish Department, US Bureau of Reclamation and USFWS. Diversion is from the Wild Rice River, W 1/2 Section 27, T. 130 LTL N., R. 54 W. Priority date August 15, 1985.

2. Water Use - 1991

The Wild Rice River, Frenier Dam and Sprague Lake Creek flowed well below average this year. Labelle Creek flowed well above average, filling Lake Tewaukon. Natural wetlands received very little inflow and were only 20% full after spring runoff. Some Type IV wetlands were dry by June.

Pool 1 (Lake Tewaukon): The year began with the lake frozen at 1145.84 (1148.0 is full pool and virtually never is attained in the fall after a summer of evaporation loss). On June 14 a four inch rain in the Sisseton Hills south of LaBelle creek caused it to flow and Lake Tewaukon to peaked at 1147.86 on July 6. Lake Tewaukon froze over completely on November 25 at 1146.96 (except for two holes kept open by waterfowl and the aerator).

Parker Bay (east end of Lake Tewaukon): Inflow from LaBelle Creek was diverted into Parker's Bay to raise the water level to benefit waterfowl. At years end there was approximately three feet of water in Parker's Bay.

Pool 2 (Cutler Marsh): Very little inflow was received and Pool 2 went almost dry. In mid-August water was released from pool 3 into pool 2 and then into pool 11 (East White Lake). Pool 2 went into freeze-up below the gauge.

Pool 2A: 2A received very little inflow and maintained a depth of 4 to 6 inches throughout the year.

Pool 3 (Maka Pool): This pool was at about 1149.60 when spring runoff began. Virtually no inflow was received. Pool 3 was held at this elevation to provide nesting sites for over-water nesters and brood water until June 30 when water from Pool 4 was released into it. Pool 3 then peaked at a elevation of 1156.15.

Pool 3A: This pool was at same level as Pool 3 and remained that way all year.

Pool 4 (River Pool): Pool 4 received a little runoff and peaked on July 8 at 1160.27. All water from Pool 4 was dumped into Pool 3 at the end of June.

Pool 5, 5A, 6, 7, 7A: Were dry.

Pool 8 (Hepi Lake): This pool was about 2.5 feet deep when spring runoff began and had about 6 to 8 inches of water in it at freeze up.

Pool 10: This pool held about 6 inches of water from spring until freeze-up.

Pool 11 (West White Lake): This unit received very little runoff and by mid-July was dry.

Pool 12 (East White Lake): This pool was dry until the end of August when the water from Pool 4 was pushed through Pools 2 & 3 to provide about 1 foot of water for migrating waterfowl to feed on the seed sources from plants that had established during drawdown.

Pool 13 (Mann Lake): This pool was dry.

Pool 14 (Sprague Lake): Due to summer rains south of the lake it peaked on July 19 when full pool was reached. At freeze-up the lake was approximately 6 feet deep.

Pool 16 (Horseshoe Slough Group): No water was available for this unit. Five of the eight wetlands were dry and the three that held water were down to 6 inches by freeze-up.

3. Impoundment Data

Please see the attached chart for capacities for each pool at various elevations. No formal inflow/outflow records were maintained. Please see Section #2 above for elevation changes for the various pools.

4. 1992 Plans

If 1992 is a dry year, we plan to hold all the water we can to maximize waterfowl production in each pool. If we get enough runoff we will attempt to manage the pools as follows:

Pool 1 (Lake Tewaukon): Fill to about 1148.0 MSL which will be adequate for bank stabilization contract work to continue. This level will allow flow into adjacent wetlands on the Krause WPA, Tewaukon WMA, and the Refuge. After these wetlands have received adequate water, the lake will be managed at 1148.0 MSL to maintain sport fishery habitat.

Parker Bay (east end of Lake Tewaukon): Flood to a maximum of four feet as early as possible in the spring before duck nesting occurs. Maintain a 2-1/2 - 3 foot depth for waterfowl production.

Pool 2 (Cutler Marsh): Fill the pool to 1152.5 MSL to flood dense cattails in the west end without killing vegetation in the lower end. When the water temperatures are correct, small amounts of water will be released in May-August to help commercial fishermen net carp.

Pool 3 (Maka Pool): Fill full to approximately 1156.0 and stabilize as quickly as possible before over-water duck nesting is initiated. If needed, supply water to Pools 2A and 3A. Supply water to Nickeson Bottoms as described in the next section. Hold water at maximum depth to slow cattail invasion.

Nickeson Bottoms: Flood to a depth of approximately 4 feet as quickly as possible to kill cattails but still minimize carp invasion. Maintain this depth to continue cattail control and encourage establishment of a muskrat population. Muskrats will further aid in cattail control and their lodges will provide waterfowl nesting and loafing sites.

Pool 4 (River Pool): Refill to 1160.0 to retard cattail invasion and establish muskrat populations.

Pools 2A, 3A, 5, 5A, 6, 7, 7A: If possible, fill to maximum depth to flood cattails. Water from Pool 3 can be used to fill Pools 2A and 3A.

Pool 8 (Hepi Lake): Initially 5-6 feet of water may be needed to supply Pools 7A, 7, 6, 5A, 5, 3A, and 2A downstream. Draw the pool down to 3 feet as soon as possible to maintain cattail and bulrush stands.

Pool 9: If possible keep water out of this pool and allow it to dry up. Drying will allow some cattails to reestablish.

Pool 10: Allow this pool to fill naturally or open the supply ditch control and flood to a maximum of 3 feet. This wetland should be maintained at this level; over-filling would probably flood out the excellent stand of bulrush. It should be allowed to dry down to maintain its highest use as a semi-permanent wetland.

Pool 11 (West White Lake): Maintain depth at 4 to 4-1/2 feet to slow cattail invasion.

Pool 12 (East White Lake): Fill to a depth of 3.5 feet and try to maintain depth at 2.5 feet.

Pool 13 (Mann Lake): Add 3 feet of water to this pool in order to enhance newly established cattails and bulrush stands.

Pool 14 (Sprague Lake): Fill to maximum pool, about 8-1/2 feet in order to maintain the sport fishery.

Pool 16 (Horseshoe Slough): Gravity flow water from the Wild Rice River to fill all pools. Some pumping may be necessary to top these pools off. Pool A should attain the level of 1207.5 MSL and all others about 1206 MSL.

5. Location Map

Please see Section #2 for the revised Refuge Map on which all management pools are marked.

Jack Halor Arnowald M

FL Fred G. Giese

Attachments

TEWAUKON NATIONAL WILDLIFE REFUGE
Pools, Elevations and Acres

12/12/85

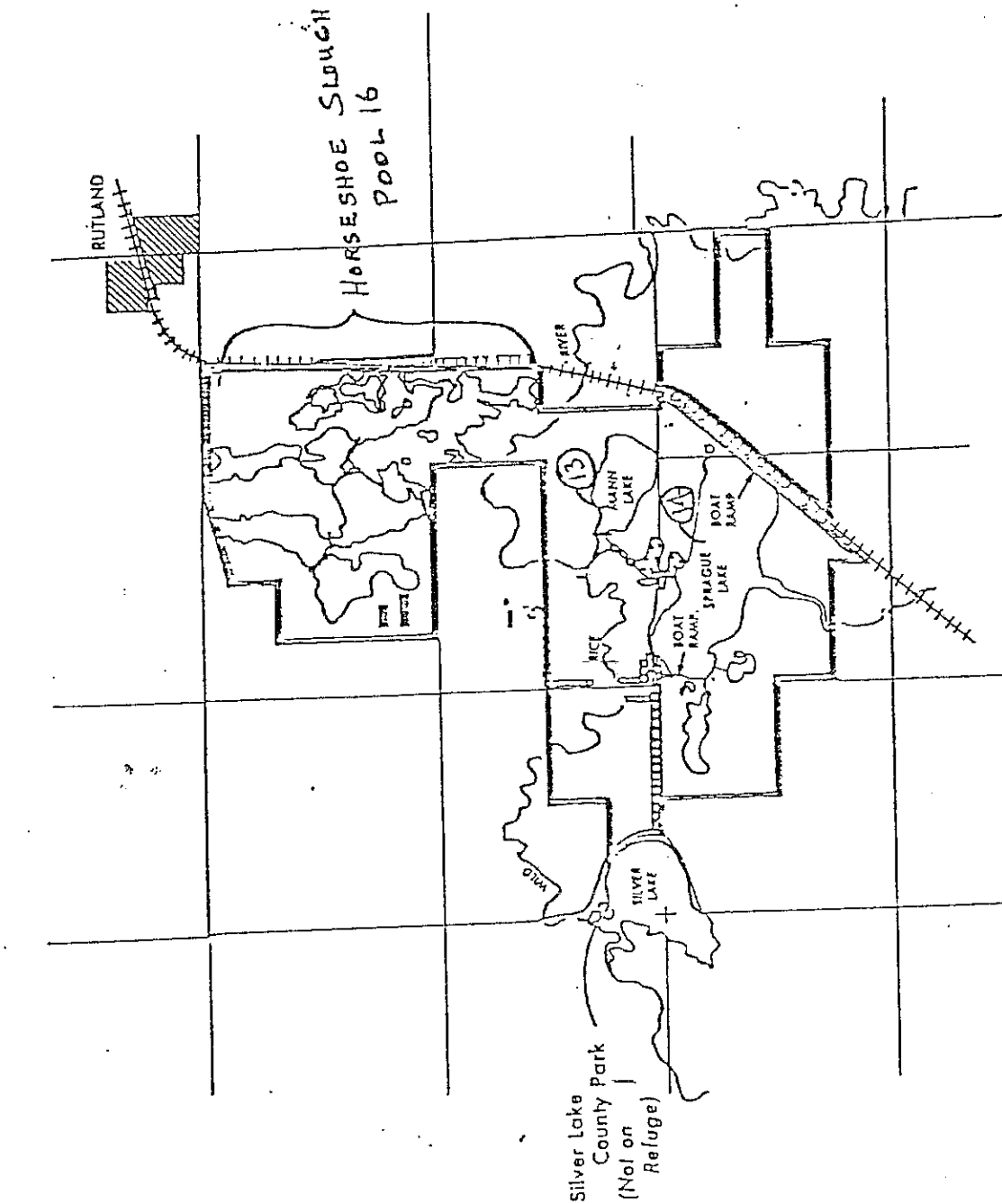
Pool 1 - Tewaukon	1149	1015
- Parker's Bay	1149	95
Pool 2 - Cutler's Marsh	1152	246
Pool 2A		30
Pool 3 - Maka Pool	1156	125
Pool 3A		18
Pool 4 - River Pool	1159	108
Pool 5	1160	6
Pool 5A		5
Pool 6	1165	6
Pool 7	1178	21
Pool 7A		106
Pool 8 - Hepi Lake	1179	106
Pool 9	1167	10
Pool 10	1173	5.5
Pool 11 - W. White Lake	1151	80
Pool 12 - E. White Lake	1147	103
Pool 13 - Mann Lake	1207	57
Pool 14 - Sprague Lake	1209	186

Pool 16 - Horseshoe Slough		244
A Pool	1210	119.7
B Pool	1206	42.5
C Pool	1206	10.3
B-West Pool	1206	30.3+
B-North Pool	1206	24.5
C-North Pool	1206	2.8+
C-East Pool	1206	5.5
C-South Pool	1206	9.0

This map illustrates the Lake Tewa area, including the lake itself, surrounding land, and various water management features. Key elements include:

- Geographical Features:** Lake Tewa, Parker Bay, MCHC Area, Office, East White Lake, West White Lake, Naya Pool, Cutler Marsh, Rice Lake, Rice, and Wild.
- Infrastructure:** Highway 12 (TO CAYUGA), Highway 10, and various roads.
- Water Management Pools:** Labeled with numbers 1 through 12, and sub-labels 2A, 3A, 5A, 7A, and 8A.
- Other Labels:** Nickerow Bottoms, Marquette Slough, Maute Slough, and Easement Refuge.
- Scale and Orientation:** A scale bar indicates distances in miles (1/4, 0, 1/4, 1/2, 3/4). A north arrow is present in the upper left corner.

SPRAGUE LAKE UNIT



WATER USE REPORT/
MANAGEMENT PLAN
SHORT FORM

Lake Elsie NWR, Richland County
Station Name

Summer, 1991 (date not recorded)
Date of Inspection

Declaration of Filing: 8/30/37
Water Right No.

Minor local runoff, at least two
Source(s) drainage ditches, several
springs

(522 acre-feet storage)
(900 acre-feet seasonal)

Water Diverted: Yes _____ No X

Means of Diversion None
Rate _____

*Impoundment(s): Yes _____ No X

Water level 522 acre-feet
(Elevation or Est. Storage Amount)

*Well(s):

Free Flowing none-known gpm

Pumped _____ gpm

Type of Use:

Surface Irrigation _____
(Crop) _____

Fish & Wildlife XX

Stock _____

Domestic _____

Other high public use: swimming
water skiing, fishing

OVERALL CLIMATIC CONDITIONS: 1991 was relatively dry. Very minor amounts of runoff were received.

CONDITION OF FACILITIES: No facilities present.

PROPOSED WATER PROGRAM: None, no water management capability is present. At maximum, the lake spills north through a (damaged) culvert.

COMMENTS: The lake is an extremely popular summer recreational area. The Richland County Commissioners, Richland County Wildlife Club and the North Dakota Game and Fish are looking at a project that would include raising the bridge and county road, provide a fishing bridge, build a Carp trapping area and the possibility of a Walleye rearing pond.

for Tack Halby
Admin. PM
Fred G. Giese

*If more than one impoundment or well, please attach additional sheet.

WATER USE REPORT/
MANAGEMENT PLAN
SHORT FORM

Storm Lake NWR, Sargent County
Station Name

June 8, 1991
Date of Inspection

Declaration of Filing: 8/30/37
Water Right No.

Drainage ditch (legal)
Source(s)

(729 acre-feet storage)
(516 acre-feet seasonal)

Water Diverted: Yes _____ No X

Means of Diversion Uncontrolled ditch
Rate unknown

*Impoundment(s): Yes _____ No X

Water level estimate 654 acre-feet
(Elevation or Est. Storage Amount)

*Well(s):

Free Flowing none gpm
Pumped _____ gpm

Type of Use:

Surface Irrigation _____
(Crop) _____
Fish & Wildlife X virtually no
Stock _____ public use
Domestic _____
Other _____

OVERALL CLIMATIC CONDITIONS: 1991 was dry.

CONDITION OF FACILITIES: A diversion dam at the head of the feeder ditch serving Storm Lake washed out well before 1976. Apparently someone decided it wasn't worth repairing.

PROPOSED WATER PROGRAM: No water management capability is present. Water runs down the ditch into the lake to an unknown degree each spring. Water did not run in 1991 due to low runoff volume.

COMMENTS: The lake serves as an excellent waterfowl loafing sanctuary with good use by snow geese, canvasbacks, redheads, lesser scaup, and tundra swans. Water levels fluctuate on their own. If active management was initiated, some degree of improvement might be gained by a cycle of drawdown management. It is questionable if the benefits would be worth the costs for Storm Lake alone. However, when you look at the other three wetlands to the south we should continue to work with Ducks Unlimited and put the Mini Joint Venture back on tract. The Golf Course Association of Milnor has been very quiet in their request to use lake water to irrigate portions of the Storm Lake Golf Course. The Association was granted a conditional water right, junior to that of the FWS. The Golf Course Association is now looking into doing some new landscaping and has contacted us about the possibility of doing some cosmetic changes on the feeder ditch.

FGL Tack Halbo
ACTING R.M.
Fred G. Giese

*If more than one impoundment or well, please attach additional sheet.